Investing in Our Future: The Evidence Base on Preschool Education

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EXECUTIVE SUMMARY

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Large-scale public preschool programs can have substantial impacts on children's early learning. Scientific evidence on the impacts of early childhood education has progressed well beyond exclusive reliance on the Perry Preschool and Abecedarian programs. A recent analysis integrating evaluations of 84 preschool programs concluded that, on average, children gain about a third of a year of additional learning across language, reading, and math skills. At-scale preschool systems in Tulsa and Boston have produced larger gains of between a half and a full year of additional learning in reading and math. Benefits to children's socio-emotional development and health have been documented in programs that focus intensively on these areas.

Quality preschool education is a profitable investment. Rigorous efforts to estimate whether the economic benefits of early childhood education outweigh the costs of providing these educational opportunities indicate that they are a wise financial investment. Available benefit-cost estimates based on older, intensive interventions, such as the Perry Preschool Program, as well as contemporary, large-scale public preschool programs, such as the Chicago Child-Parent Centers and Tulsa's preschool program, range from three to seven dollars saved for every dollar spent.

The most important aspects of quality in preschool education are stimulating and supportive interactions between teachers and children and effective use of curricula. Children benefit most when teachers engage in stimulating interactions that support learning *and* are emotionally supportive. Interactions that help children acquire new knowledge and skills provide input to children, elicit verbal responses and reactions from them, and foster engagement in and enjoyment of learning. Recent evaluations tell us that effective use of curricula focused on such specific aspects of learning as language and literacy, math, or socio-emotional development provide a substantial boost to children's learning. Guidelines about the number of children in a classroom, the ratio of teachers and children, and staff qualifications help to increase the likelihood of—but do not assure—supportive and stimulating interactions. Importantly, in existing large-scale studies, only a minority of preschool programs are observed to provide excellent quality and levels of instructional support are especially low.

Supporting teachers in their implementation of instructional approaches through coaching or mentoring can yield important benefits for children. Coaching or mentoring that provides support to the teacher on how to implement content-rich and engaging curricula shows substantial promise in helping to assure that such instruction is being provided. Such coaching or mentoring involves modeling positive instructional approaches and providing feedback on the teacher's implementation in a way that sets goals but is also supportive. This can occur either directly in the classroom or though web-based exchange of video clips.

Quality preschool education can benefit middle-class children as well as disadvantaged children; typically developing children as well as children with special needs; and dual language learners as well as native speakers. Although early research focused only on programs for low-income children, more recent research focusing on universal preschool programs provides the opportunity to ask if preschool can benefit children from middle-income as well as low-income families. The evidence is clear that middle-class children can benefit substantially, and that benefits outweigh costs for children from middle-income as well as those from low-income families. However, children from low-income backgrounds benefit more. Children with special needs who attended Tulsa's preschool program showed comparable improvements in reading and pre-writing skills as typically developing children. Further, at the end of first grade, children with special needs who had attended Head Start as 3-year-olds showed stronger gains in math and social-emotional development than children with special needs who had not attended Head Start. Studies of both Head Start and public preschool programs suggest that dual language learners benefit as much as, and in some cases more than, their native speaker counterparts.

A second year of preschool shows additional benefits. The available studies, which focus on disadvantaged children, show further benefits from a second year of preschool. However, the gains are not always as large as from the first year of preschool. This may be because children who attend two years of preschool are not experiencing a sequential building of instruction from the first to the second year.

Long-term benefits occur despite convergence of test scores. As children from low-income families in preschool evaluation studies are followed into elementary school, differences between those who received preschool and those who did not on tests of academic achievement are reduced. However, evidence from long-term evaluations of both small-scale, intensive interventions and Head Start suggest that there are long-term effects on important societal outcomes such as high-school graduation, years of education completed, earnings, and reduced crime and teen pregnancy, even after test-score effects decline to zero. Research is now underway focusing on why these long-term effects occur even when test scores converge.

There are important benefits of comprehensive services when these added services are carefully chosen and targeted. When early education provides comprehensive services, it is important that these extensions of the program target services and practices that show benefits to children and families. Early education programs that have focused in a targeted way on health outcomes (e.g., connecting children to a regular medical home; integrating comprehensive screening; requiring immunizations) have shown such benefits as an increase in receipt of primary medical care and dental care. In addition, a parenting focus can augment the effects of preschool on children's skill development, but only if it provides parents with modeling of positive interactions or opportunities for practice with feedback. Simply providing information through classes or workshops is not associated with further improvements in children's skills.

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